

STATE OF MICHIGAN  
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the application of	)	
<b>UPPER MICHIGAN ENERGY RESOURCES</b>	)	
<b>CORPORATION</b> requesting approval of a renewable	)	Case No. U-18236
energy plan to fully comply with Public Act 295 of	)	
2008, as amended.	)	
_____	)	

At the January 23, 2018 meeting of the Michigan Public Service Commission in Lansing,  
Michigan.

PRESENT: Hon. Sally A. Talberg, Chairman  
Hon. Norman J. Saari, Commissioner  
Hon. Rachael A. Eubanks, Commissioner

**ORDER APPROVING SETTLEMENT AGREEMENT**

On March 9, 2017, Upper Michigan Energy Resources Corporation (UMERC) filed an application with supporting testimony and exhibits requesting approval of a renewable energy plan in accordance with a settlement agreement approved by the Commission on December 9, 2016 in Case No. U-18061 (U-18061 settlement agreement).

As stated in UMERCE's application, on January 1, 2017, pursuant to the U-18061 settlement agreement, UMERCE was established as a Michigan-regulated utility providing service to electric and natural gas customers in the Upper Peninsula of Michigan. On January 1, 2017, Wisconsin Electric Power Company (WEPCo) and Wisconsin Public Service Corporation transferred all of their Michigan jurisdictional distribution substations, distribution lines, and other distribution assets used in providing retail electric service in Michigan, as well as their Michigan retail full

requirements customers and retail access service customers to UMERC, except for one customer, Tilden Mining Company L.C. (Tilden).

A prehearing conference was held on April 19, 2017, before Administrative Law Judge Dennis W. Mack. UMERC and the Commission Staff participated in the proceeding. Subsequently, the parties submitted a settlement agreement resolving all the issues in the case.

The Commission has reviewed the settlement agreement and finds that the public interest is adequately represented by the parties who entered into the settlement agreement. The Commission further finds that the settlement agreement is in the public interest, represents a fair and reasonable resolution of the proceeding, and should be approved.

THEREFORE, IT IS ORDERED, that:

- A. The settlement agreement, attached as Exhibit A, is approved.
- B. Upper Michigan Energy Resources Corporation's renewable energy plan, as set forth in the settlement agreement, satisfies the requirements of Public Act 295 of 2008, as amended by Public Act 342 of 2016.

The Commission reserves jurisdiction and may issue further orders as necessary.

Any party desiring to appeal this order must do so in the appropriate court within 30 days after issuance and notice of this order, pursuant to MCL 462.26. To comply with the Michigan Rules of Court's requirement to notify the Commission of an appeal, appellants shall send required notices to both the Commission's Executive Secretary and to the Commission's Legal Counsel.

Electronic notifications should be sent to the Executive Secretary at [mpscedockets@michigan.gov](mailto:mpscedockets@michigan.gov) and to the Michigan Department of the Attorney General - Public Service Division at [pungpl@michigan.gov](mailto:pungpl@michigan.gov). In lieu of electronic submissions, paper copies of such notifications may be sent to the Executive Secretary and the Attorney General - Public Service Division at 7109 W. Saginaw Hwy., Lansing, MI 48917.

MICHIGAN PUBLIC SERVICE COMMISSION

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Sally A. Talberg, Chairman

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Norman J. Saari, Commissioner

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Rachael A. Eubanks, Commissioner

By its action of January 23, 2018.

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Kavita Kale, Executive Secretary

**STATE OF MICHIGAN**  
**BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION**

\* \* \* \* \*

In the matter of the Application of	)	
<b>UPPER MICHIGAN ENERGY RESOURCES</b>	)	
<b>CORPORATION</b> requesting approval of a renewable	)	Case No. U-18236
renewable energy plan to fully comply with	)	
<u>Public Act 295 of 2008, as amended.</u>	)	

**SETTLEMENT AGREEMENT**

Pursuant to MCL 24.278 and Rule 431 of the Commission’s Rules of Practice and Procedure, Mich Admin Code, R 792.10431 (“Rule 431”), Upper Michigan Energy Resources Corporation (“UMERC”) and the Michigan Public Service Commission (“Commission”) Staff (“Staff”) agree as follows:

1. UMERC filed its Application in this case on March 9, 2017, in accordance with a settlement agreement approved by the Commission on December 9, 2016 in Case No. U-18061 (“U-18061 Settlement Agreement”). The Application was supported by the pre-filed direct testimony and exhibits of Dennis M. Derricks.

2. As stated in the Application, on January 1, 2017, pursuant to the U-18061 Settlement Agreement, UMERC was established as a Michigan regulated utility providing service only to electric and natural gas customers in the Upper Peninsula of Michigan. On January 1, 2017, Wisconsin Electric Power Company (“Wisconsin Electric”) and Wisconsin Public Service Corporation (“WPS Corp”) transferred all of their Michigan jurisdictional distribution substations, distribution lines, and other distribution assets used in providing retail electric service in Michigan, as well as their Michigan retail full requirements customers and retail access service customers to UMERC, except for one customer, Tilden Mining Company

L.C. (“Tilden”). UMERC provides electric service in two rate zones: the WEPCo Rate Zone and the WPSC Rate Zone. Customers in UMERC’s WEPCo Rate Zone are the former Wisconsin Electric Michigan customers that were transferred when UMERC was established, and customers in UMERC’s WPSC Rate Zone are the former WPS Corp Michigan customers that were transferred when UMERC was established.

3. The U-18061 Settlement Agreement states that Wisconsin Electric will continue to serve Tilden and Empire Iron Mining Partnership (“Empire”) (collectively, “Mines”) until termination of both of the 2015-2019 Large Curtailable Special Contracts between Wisconsin Electric and the Mines that were approved by the Commission’s April 23, 2015 Order in Case No. U-17862, at which time the Mines will be transferred as customers of UMERC. In a signed letter appended as Attachment B to Wisconsin Electric’s September 1, 2016 Application Requesting Approval of Amendment in Case No. U-17862, Wisconsin Electric and Empire agreed that Empire’s special contract would terminate no later than October 15, 2016. The Commission approved the termination letter in its December 9, 2016 Order in Case No. U-17862. As a result, Tilden is Wisconsin Electric’s only customer, and will remain a customer of Wisconsin Electric until it is transferred as a customer to UMERC, which as of the date of this Settlement Agreement is projected to occur in mid-2019.

4. On March 17, 2017, the Commission’s Executive Secretary issued a Notice of Hearing directing UMERC to mail a copy of the Notice of Hearing to all cities, incorporated villages, townships, and counties in its Michigan electric and natural gas service area. The Commission’s Executive Secretary further directed UMERC to publish the Notice of Hearing in daily newspapers of general circulation throughout its Michigan electric and natural gas service area. Finally, the Commission’s Executive Secretary directed the Company to serve a copy of its

testimony and exhibits on all persons who petitioned to intervene. UMEREC filed its proofs of mailing and publication in this docket on April 12, 2017.

5. On April 19, 2017, Administrative Law Judge Dennis W. Mack conducted a prehearing conference. No person requested to intervene at the prehearing conference, and a case schedule was adopted. The Staff filed the direct testimony and exhibit of Meredith A. Hadala on September 27, 2017.

6. Subsequently, the parties participated in settlement discussions regarding UMEREC's renewable energy ("RE") Plan filed in this Case No. U-18236, and agree as follows:

a. UMEREC's RE Plan, as set forth in Attachment A, and as further described in Paragraphs 6.a. through 6.m. of this Settlement Agreement (the "2017 RE Plan"), satisfies the requirements of 2008 PA 295 as amended by 2016 PA 342, is reasonable and prudent, and should be approved.

b. UMEREC will obtain renewable energy credits ("RECs") to meet its REC portfolio requirements as follows:

i. RECs allocated to UMEREC for RE purchased under UMEREC's power purchase agreement ("PPA") with WPS Corp ("WPS Corp PPA") and UMEREC's PPA with Wisconsin Electric ("WEPCo PPA"), as well as RECs acquired by Wisconsin Electric under an agreement with Cadillac Renewable Energy, LLC. ("CRE Agreement"), which Wisconsin Electric will sell to UMEREC, pursuant to a REC Purchase Agreement between Wisconsin Electric and UMEREC (pre-filed in this docket as Exhibit A-3 (DMD-3)), at the same price at which Wisconsin Electric acquires the RECs under the CRE Agreement.

ii. After the commencement of operations of UMEREC's reciprocating internal combustion engine ("RICE") electric generation facilities that were the subject of the Commission's October 25, 2017 Order in Case No. U-18224 (at which point the PPAs will be terminated), through future REC purchases and banked RECs transferred from Wisconsin Electric and WPS Corp, as well as other possible options.

c. While the WEPCo PPA and WPS Corp PPA are in effect (*i.e.*, prior to the commencement of operation of the RICE electric generation facilities), for recovery of RE costs under this RE Plan, UMEREC shall maintain the same cost recovery mechanisms previously approved for Wisconsin Electric and WPS Corp for their service to the WEPCo Rate Zone and the WPSC Rate Zone, respectively, prior to the formation of UMEREC, as follows:

i. costs of pre-2008 PA 295 RE generated at Wisconsin Electric-owned and WPS Corp-owned facilities, pre-2008 PA 295 RE purchased under a CGS tariff, and RE obtained by Wisconsin Electric and WPS Corp under PPAs, and allocated to UMEREC will be recovered via traditional rate mechanisms (*e.g.*, via UMEREC's base rates and the PSCR mechanism); and

ii. costs of pre-2008 PA 295 RE generated at Wisconsin Electric-owned facilities that is allocated to UMEREC via the WEPCo PPA, namely from the Glacier Hills Wind Farm ("Glacier Hills"), the Montfort Energy Center ("Montfort"), and the Rothschild Bio-mass Energy Project ("Rothschild"), will be recovered via the transfer price and RE surcharges. The transfer prices to be applied in pending and future UMEREC RE reconciliation proceedings, PSCR plan

proceedings, and PSCR reconciliation proceedings: (a) for RE from Glacier Hills is the \$80.41 per MWh transfer price established in Wisconsin Electric's initial RE and 2015 RE Plan; (b) for RE from Montfort and Rothschild is the transfer price schedule established in the Commission's December 19, 2013 Order in Case No. U-16662 and used in Wisconsin Electric's 2015 RE Plan.

d. Both before and after the WEPCo PPA and WPS Corp PPA cease to be in effect, the cost of REC-only purchases made to comply with 2008 PA 295 (as amended) shall be treated as incremental RE costs and recovered via RE surcharges.

e. For purposes of this 2017 RE Plan and in pending and future RE reconciliation proceedings, the incremental cost of Rothschild on a per MWh basis shall be the difference between: (i) the lower of either the levelized revenue requirement of \$140 per MWh or the actual annual revenue requirement per MWh; and (ii) the transfer price, irrespective of whether the actual annual revenue requirement per MWh for Rothschild generation is higher than \$140 per MWh; provided, however, that this rate treatment of the revenue requirements for Rothschild is for the sole purpose of reaching a compromise among the parties in this RE plan proceeding. Rothschild costs that are deemed not to be incremental costs by virtue of this paragraph, if any, are not being deferred through this settlement. Nonetheless, UMERL does not waive, but fully preserves, its rights to: (a) introduce in a future RE plan or reconciliation proceeding, or in a general rate case, new or different revenue requirement information for Rothschild; and (b) request in such proceedings that the Commission approve a change in the recovery of the costs of Rothschild, including (but not limited to) the recovery of all Rothschild revenue requirements in base rates.



f. The incremental cost of Wisconsin Electric-owned post-2008 PA 295 RE above the transfer price and REC purchases that will be recovered via the RE surcharges shall be reconciled in accordance with MCL 460.1049 in pending and future RE reconciliation proceedings. The Company shall continue to use the first-in, first-out method whereby the oldest RECs will be used first to meet the Michigan REC standard. If there are not enough unexpired RECs from previous years to meet the current year Michigan REC portfolio requirement, then RECs from the current year will be used to meet the remaining current year Michigan REC portfolio requirement. With the exception of Rothschild costs, which are governed by Paragraph 6.e., above, to the extent that the costs of obtaining RE are not recovered via a transfer price and RE surcharge, UMEREC may request that such costs be reviewed and recovered in otherwise applicable regulatory proceedings.

g. Any regulatory asset transferred from Wisconsin Electric to UMEREC pursuant to the approved RE Plan for Wisconsin Electric in Case No. U-18237 shall be a regulatory asset of UMEREC and UMEREC's RE Plan and shall be fully recovered via UMEREC's RE surcharges or other means. Additionally, any REC bank transferred by Wisconsin Electric and WPS Corp to UMEREC will be at cost and will be used by UMEREC to meet its REC portfolio requirements.

h. UMEREC will base the MWh used in the calculation of its REC portfolio requirement for 2017 and beyond on the average number of MWhs of electricity sold during the previous 3 years to its retail customers, and UMEREC reserves the right to seek a change in this method of calculation of its REC portfolio requirement in a future RE Plan.

i. The Company's current RE surcharges will remain in effect until modified by the Commission. UMEREC shall review whether to revise its RE surcharges in its first RE reconciliation proceeding after Tilden is transferred as a customer to UMEREC.

j. Pursuant to MCL 460.1045(2), in determining the number of RECs to be included in UMEREC's annual REC portfolio targets, UMEREC shall not include any Tilden sales beyond those RECs that can be obtained through RE surcharges collected from Tilden.

k. UMEREC will use the same REC inventory accounting method for RECs obtained to comply with Michigan's REC portfolio requirements as was approved for Wisconsin Electric in Case No. U-17798.

l. The assumptions and projections underlying and contained in this 2017 RE Plan, including (but not limited to) projected sales, energy allocators and revenue requirements throughout the plan period, are subject to change, and UMEREC may introduce in a future RE plan or reconciliation proceeding, or in a general rate case, new or different sales forecasts and revenue requirements and other projections.

m. The REC Purchase Agreement between Wisconsin Electric and UMEREC, pursuant to which Wisconsin Electric will sell RECs to UMEREC (pre-filed as Exhibit A-3 (DMD-3)) should be approved. In the event that UMEREC determines that it will purchase RECs to comply with the REC portfolio requirement in the future, it will utilize a competitive solicitation process for such purchases, which may include issuing a Request for Proposal.

7. This Settlement Agreement is entered into for the sole and express purpose of reaching a compromise among the parties. All offers of settlement and discussions relating to

this settlement are considered privileged under MRE 408. If the Commission approves this Settlement Agreement without modification, neither the parties to the settlement nor the Commission shall make any reference to, or use this Settlement Agreement or the order approving it, as a reason, authority, rationale or example for taking any action or position or making any subsequent decision in any other case or proceeding; provided, however, such references may be made to enforce or implement the provisions of this Settlement Agreement and the order approving it.

8. Pursuant to Rule 431, the parties agree any order approving this Settlement Agreement shall not establish precedent for future proceedings. This Settlement Agreement is based on the facts and circumstances of this case and is intended as the final disposition of Case No. U-18236 only. If the Commission approves this Settlement Agreement, without modification, the undersigned parties agree not to appeal, challenge or otherwise contest the Commission order approving this Settlement Agreement.

9. This Settlement Agreement is not severable. Each provision of this Settlement Agreement is dependent upon all other provisions of this Settlement Agreement. Failure to comply with any provision of this Settlement Agreement constitutes failure to comply with the entire Settlement Agreement. If the Commission rejects or modifies this Settlement Agreement or any provision of this Settlement Agreement, this Settlement Agreement shall be deemed to be withdrawn, shall not constitute any part of the record in this proceeding or be used for any other purpose, and shall not operate to prejudice the pre-negotiation positions of any signatory.

10. The parties agree to waive Section 81 of the Administrative Procedures Act of 1969 (MCL 24.281), as it applies to the issues in this proceeding, if the Commission approves this Settlement Agreement without modification.

UPPER MICHIGAN ENERGY RESOURCES CORPORATION

Dated: December 12, 2017

By: **Michael C. Rampe**  
Its Attorneys  
Michael C. Rampe (P58189)  
MILLER, CANFIELD, PADDOCK AND  
STONE, P.L.C.  
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MICHIGAN PUBLIC SERVICE COMMISSION STAFF

Dated: December 12, 2017

By: **Spencer Sattler**  
One of its Attorneys  
Spencer A. Sattler (P70524)  
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**RENEWABLE ENERGY PLAN SUMMARY**

Upper Michigan Energy Resources Corporation (Wepeco Rate Zone).

Row No.		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	<b>Sales and Requirement Calculation</b>														
2	Method: Weather Normalized or 3 Year Average														
3	If Selected Weather Normalized:														
4	Current Year Sales to Retail Customers														
5	Current Year Weather Normalization Factor														
6	Current Year Weather Normalized Sales (Row Number 4 * 5)														
7	If Selected 3 Year Average:														
8	Current Year Retail Sales to Retail Customers	349,791	362,904	363,072	363,068	363,266	363,527	363,809	364,097	364,388	364,679	364,970	364,970	364,970	364,970
9	3 Year Average of Retail Sales	349,791	431,672	424,640	358,589	363,015	363,135	363,287	363,534	363,811	364,098	364,388	364,679	364,873	364,970
10	<b>RPS Required Energy Credits</b> (For 2017 and 2018 enter the same amount as 2015 requirement in MIRECS, for 2019 and 2020 enter 12.5% of row 6 or 9, for 2021 enter 15% of row 6 or 9)	38,400	38,400	38,400	44,824	45,377	54,470	54,493	54,530	54,572	54,615	54,658	54,702	54,731	54,746
11	<b>Energy Credits</b>														
12	Energy Credit Beginning Balance	-	0	29,318	56,379	21,200	111,389	56,918	0	0	0	0	0	0	0
13	Energy Credits Obtained Through Generation/BOT	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Energy Credits Obtained Through PPA	-	32,718	30,461	9,645	-	-	-	-	-	-	-	-	-	-
15	Energy Credits Obtained Through REC Purchases	-	35,000	35,000	-	-	-	(2,425)	54,530	54,572	54,615	54,658	54,702	54,731	54,746
	WEPCo Bank Transfer	-	-	-	135,565	-	-	-	-	-	-	-	-	-	-
16	Plus: Energy Credit Obtained (Row 13+14+15)	-	67,718	65,461	9,645	135,565	0	-2,425	54,530	54,572	54,615	54,658	54,702	54,731	54,746
17	Less: Energy Credits Sold	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Available Energy Credits (Row 12+16-17)	-	67,718	94,779	66,024	156,765	111,389	54,493	54,530	54,572	54,615	54,658	54,702	54,731	54,746
19	Compliance Requirement (Row 10)	-	38,400	38,400	44,824	45,377	54,470	54,493	54,530	54,572	54,615	54,658	54,702	54,731	54,746
20	Less: Energy Credit Expiration	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	Energy Credit Ending Balance (Row 18-19-20)	-	29,318	56,379	21,200	111,389	56,918	0	0	0	0	0	0	0	0
22	<b>Revenue Requirement</b>														
23	Cost of Renewable Energy Generation/BOT	\$ -	\$ 1,083,864	\$ 1,031,381	\$ 439,990										
24	Cost of Renewable Energy PPA	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Cost of Renewable Energy Credit Purchases	\$ -	\$ 131,250	\$ 192,500			\$ -	\$ (970)	\$ 21,812	\$ 21,829	\$ 21,846	\$ 21,863	\$ 21,881	\$ 21,892	\$ 21,898
26	Costs of Administration of Renewable Energy Plan														
	Less: Revenue obtained from Renewable Energy Sales (non-retail)														
27	Total Revenue Requirement for Renewable Energy Plan (Row 23+24+25+26-27)	\$ -	\$ 1,215,114	\$ 1,223,881	\$ 439,990	\$ -	\$ -	\$ (970)	\$ 21,812	\$ 21,829	\$ 21,846	\$ 21,863	\$ 21,881	\$ 21,892	\$ 21,898
29	<b>Cost Recovery</b>														
30	Forecasted Transfer Price per MWH		76.98	77.35	77.68										
31	MWH of Renewable Energy		9,106	9,044	3,916										
	Amount Recovered Through the PSCR (Row 30 * 31)														
32		\$ -	\$ 701,019	\$ 699,525	\$ 304,178										
33	Incremental Cost of Compliance (Row 28-32)	\$ -	\$ 514,095	\$ 524,356	\$ 135,812	\$ -	\$ -	\$ (970)	\$ 21,812	\$ 21,829	\$ 21,846	\$ 21,863	\$ 21,881	\$ 21,892	\$ 21,898
	<b>Non-Volumetric Surcharge Meter (or customer)</b>														
34	<b>Forecast</b>														
35	Residential		24,627	24,659	24,692	24,723	24,760	24,796	24,832	24,868	24,904	24,940	24,940	24,940	24,940
36	Secondary		2,988	2,988	2,988	2,988	2,988	2,988	2,988	2,988	2,988	2,988	2,988	2,988	2,988
37	Primary		5	5	5	5	5	5	5	5	5	5	5	5	5
38	Total (Row 35+36+37)	-	27,620	27,652	27,685	27,716	27,753	27,789	27,825	27,861	27,897	27,933	27,933	27,933	27,933
39	<b>Planned Surcharge Revenue</b>														
40	Residential		\$ 354,629	\$ 355,090	\$ 355,565	\$ 356,011	\$ 356,466	\$ 356,921	\$ 357,376	\$ 357,831	\$ 358,286	\$ 358,741	\$ 359,196	\$ 359,651	\$ 360,106
41	Secondary		\$ 237,725	\$ 237,725	\$ 237,725	\$ 237,725	\$ 237,725	\$ 237,725	\$ 237,725	\$ 237,725	\$ 237,725	\$ 237,725	\$ 237,725	\$ 237,725	\$ 237,725
42	Primary		\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500
43	Total (Row 40+41+42)	\$ -	\$ 596,854	\$ 597,315	\$ 597,790	\$ 598,236	\$ 598,691	\$ 599,146	\$ 599,601	\$ 599,601	\$ 599,601	\$ 599,601	\$ 599,601	\$ 599,601	\$ 599,601
44	<b>Year End Regulatory Liability Balance</b>														
	Current Year Regulatory Liability Balance (Row 43-33)	\$ -	\$ 82,759	\$ 72,959	\$ 461,978	\$ 598,236	\$ 32,838	\$ 22,655	\$ (109)	\$ 0	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)
	WEPCo Transfer					\$ (1,293,180)									
	Forecasted Ending Balance Prior to Current Year Interest (Row 48 for prior year + Row 45 of current year)	\$ -	\$ 82,759	\$ 155,780	\$ 617,937	\$ (76,426)	\$ (18,353)	\$ 1,064	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
47	Carrying Charges (Short-term interest)	\$ -	\$ 62	\$ 179	\$ 580	\$ 25,234	\$ (3,237)	\$ (955)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
48	Total Balance (Row 46 + 47)	\$ -	\$ 82,821	\$ 155,959	\$ 618,518	\$ (51,192)	\$ (21,590)	\$ 109	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

## Sec. 45 Actual / Planned Surcharge per Month

Residential	\$ 3.00	\$ 1.20	\$ 1.20	\$ 1.20	\$ 1.20	\$ 0.07	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04
Secondary	\$ 16.58	\$ 6.63	\$ 6.63	\$ 6.63	\$ 6.63	\$ 0.36	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24
Primary	\$ 187.50	\$ 75.00	\$ 75.00	\$ 75.00	\$ 75.00	\$ 4.11	\$ 2.73	\$ 2.73	\$ 2.73	\$ 2.74	\$ 2.74	\$ 2.75	\$ 2.75	\$ 2.75	\$ 2.75
% of Max						40%	2%	1%	1%	1%	1%	1%	1%	1%	1%
						40%	2%	1%	1%	1%	1%	1%	1%	1%	1%
						40%	2%	1%	1%	1%	1%	1%	1%	1%	1%
						59%	\$ (0.10)	\$ (0.04)	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
						40%	\$ (0.57)	\$ (0.24)	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
						1%	\$ (6.43)	\$ (2.71)	\$ 0.01	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
							\$ 1.30	\$ 0.11	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04
							\$ 7.20	\$ 0.60	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24	\$ 0.24
							\$ 81.43	\$ 6.82	\$ 2.71	\$ 2.73	\$ 2.74	\$ 2.74	\$ 2.75	\$ 2.75	\$ 2.75

[illegible]

**RENEWABLE ENERGY PLAN SUMMARY**  
Upper Michigan Energy Resources Corporation (legacy WPSC Rate Zone)

Row No.		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	<b>Sales and Requirement Calculation</b>														
2	Method: Weather Normalized or 3 Year Average														
3	If Selected Weather Normalized:														
4	Current Year Sales to Retail Customers														
5	Current Year Weather Normalization Factor														
6	Current Year Weather Normalized Sales (Row Number 4 * 5)														
7	If Selected 3 Year Average:														
8	Current Year Retail Sales to Retail Customers	262,171	253,674	253,582	253,672	253,309	253,124	235,124	235,124	235,124	235,124	235,124	235,124	235,124	235,124
9	3 Year Average of Retail Sales	267,913	260,580	257,513	256,476	253,643	253,521	253,368	247,186	241,124	235,124	235,124	235,124	235,124	235,124
10	RPS Required Energy Credits (For 2017 and 2018 enter the same amount as 2015 requirement in MIRECS, for 2019 and 2020 enter 12.5% of row 6 or 9, for 2021 enter 15% of row 6 or 9)	27,750	27,750	27,750	32,059	31,705	38,028	38,005	37,078	36,169	35,269	35,269	35,269	35,269	35,269
11	<b>Energy Credits</b>														
12	Energy Credit Beginning Balance	76,505	74,043	70,127	66,365	43,563	11,858	-4,649	0	0	0	0	0	0	0
13	Energy Credits Obtained Through Generation/BOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Energy Credits Obtained Through PPA	25,288	23,834	23,988	9,258	0	0	0	0	0	0	0	0	0	0
15	Energy Credits Obtained Through REC Purchases	0	0	0	0	0	21,521	42,654	37,078	36,169	35,269	35,269	35,269	35,269	35,269
16	Plus: Energy Credit Obtained (Row 13+14+15)	25,288	23,834	23,988	9,258	0	21,521	42,654	37,078	36,169	35,269	35,269	35,269	35,269	35,269
17	Less: Energy Credits Sold	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Available Energy Credits (Row 12+16-17)	101,793	97,877	94,115	75,623	43,563	33,379	38,005	37,078	36,169	35,269	35,269	35,269	35,269	35,269
19	Compliance Requirement (Row 10)	27,750	27,750	27,750	32,059	31,705	38,028	38,005	37,078	36,169	35,269	35,269	35,269	35,269	35,269
20	Less: Energy Credit Expiration	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	Energy Credit Ending Balance (Row 18-19-20)	74,043	70,127	66,365	43,563	11,858	-4,649	0	0	0	0	0	0	0	0
22	<b>Revenue Requirement</b>														
23	Cost of Renewable Energy Generation/BOT	\$ -	\$ -	\$ -	\$ -										
24	Cost of Renewable Energy PPA	\$ -	\$ -	\$ -	\$ -										
25	Cost of Renewable Energy Credit Purchases	\$ -	\$ -	\$ -	\$ -		\$ 8,608	\$ 17,062	\$ 14,831	\$ 14,467	\$ 14,107	\$ 14,107	\$ 14,107	\$ 14,107	\$ 14,107
26	Costs of Administration of Renewable Energy Plan														
27	Less: Revenue obtained from Renewable Energy Sales (non-retail)														
28	Total Revenue Requirement for Renewable Energy Plan (Row 23+24+25+26-27)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,608	\$ 17,062	\$ 14,831	\$ 14,467	\$ 14,107	\$ 14,107	\$ 14,107	\$ 14,107	\$ 14,107
29	<b>Cost Recovery</b>														
30	Forecasted Transfer Price per MWH														
31	MWH of Renewable Energy														
32	Amount Recovered Through the PSCR (Row 30 * 31)	\$ -	\$ -	\$ -	\$ -										
33	Incremental Cost of Compliance (Row 28-32)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,608	\$ 17,062	\$ 14,831	\$ 14,467	\$ 14,107	\$ 14,107	\$ 14,107	\$ 14,107	\$ 14,107
34	<b>Non-Volumetric Surcharge Meter (or customer) Forecast</b>														
35	Residential			8,071	8,086	8,101	8,101	8,101	8,101	8,101	8,101	8,101	8,101	8,101	8,101
36	Secondary			927	932	936	936	936	936	936	936	936	936	936	936
37	Primary			27	27	27	27	27	27	27	27	27	27	27	27
38	Total (Row 35+36+37)	-		9,024	9,045	9,064	9,064	9,064	9,064	9,064	9,064	9,064	9,064	9,064	9,064
39	<b>Planned Surcharge Revenue</b>														
40	Residential	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,368	\$ 7,368	\$ 7,368	\$ 7,368	\$ 7,642	\$ 7,642	\$ 7,642	\$ 7,642	\$ 7,642
41	Secondary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,700	\$ 4,700	\$ 4,700	\$ 4,700	\$ 4,875	\$ 4,875	\$ 4,875	\$ 4,875	\$ 4,875
42	Primary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,533	\$ 1,533	\$ 1,533	\$ 1,533	\$ 1,590	\$ 1,590	\$ 1,590	\$ 1,590	\$ 1,590
43	Total (Row 40+41+42)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,602	\$ 13,602	\$ 13,602	\$ 13,602	\$ 14,107	\$ 14,107	\$ 14,107	\$ 14,107	\$ 14,107
44	<b>Year End Regulatory Liability Balance</b>														
45	Current Year Regulatory Liability Balance (Row 43-33)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,994	\$ (3,460)	\$ (1,229)	\$ (865)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
46	WEPCo Transfer					\$ -									
47	Forecasted Ending Balance Prior to Current Year Interest (Row 48 for prior year + Row 45 of current year)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,994	\$ 1,766	\$ 863	\$ (1)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
48	Carrying Charges (Short-term interest)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 232	\$ 325	\$ 2	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
49	Total Balance (Row 46 + 47)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,226	\$ 2,092	\$ 865	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

Sec. 45 Actual / Planned Surcharge per Month

Residential	1%	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08
Secondary	8%	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42
Primary	91%	\$ 4.73	\$ 4.73	\$ 4.73	\$ 4.73	\$ 4.73	\$ 4.73	\$ 4.73	\$ 4.73	\$ 4.91	\$ 4.91	\$ 4.91	\$ 4.91	\$ 4.91	\$ 4.91

% of Max

**RENEWABLE ENERGY CREDIT SUMMARY**

Updated 12/1/2017	2017 Forecasted		2018 Forecasted		2019 (Jan 1 - May 31) Forecasted		2020		2021		2022		2023		2024		2025		2026		2027		2028		2029		
	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	RECs	Percent	
Technology Mix																											
Wind	8,398	48.1%	8,513	41.9%	3,587	42.5%																					
Solar	0		0		0																						
Biomass	1,562	8.9%	0		0																						
Stream	0		0		0																						
Geothermal	0		0		0																						
Municipal Solid Waste	675	3.9%	684	3.4%	288	3.4%																					
Lewistown	1,864		1,991		625																						
Hydroelectric	9,022	51.6%	9,146	45.0%	3,743	44.9%																					
Incentive	0		0		0																						
Subtotal	21,621	100%	20,334	100.0%	8,443	100.0%																					
Other (Total Expiring RECs)	(4,153)		0		0																						
Totals	17,468		20,334		8,443																						
Program Type																											
PURPA	21,621		20,334		8,443																						
Net Metering																											
Feed-in Tariffs																											
Community Solar																											
Other (Expiring)	(4,153)																										
Total	17,468		20,334		8,443																						
*RECs purchased during the year less RECs sold or expired.																											